IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

USA VIDEO TECHNOLOGY CORPORATION,	§	
	§	
Plaintiff,	§	Civil Action No. 2:06-CV-239
	§	
v.	§	
	§	JUDGE RON CLARK
TIME WARNER CABLE, INC.; CHARTER COMMUNICATIONS, INC.; COMCAST CABLE COMMUNICATIONS, LLC; COMCAST OF RICHARDSON, LP; COMCAST OF PLANO, LP; COMCAST OF DALLAS, LP,	§	
Defendants.	§	

MEMORANDUM OPINION AND ORDER CONSTRUING CLAIM TERMS OF UNITED STATES PATENT NO. 5,130,792

Plaintiff USA Video Technology Corporation ("USVO") filed suit against Defendants Time Warner Cable, Inc.; Charter Communications, Inc.; Comcast Cable Communications, Inc.; Comcast of Richardson, LP; Comcast of Plano, LP; and Comcast of Dallas, LP (collectively "Time Warner")[1] claiming infringement of United States Patent No. 5,130,792 ("the '792 patent"). The court conducted a *Markman* hearing on October 31, 2007 to assist the court in interpreting the meaning of the claim terms of the patent-in-suit. Having carefully considered the patent, the prosecution history, the briefs, and the arguments, the court now makes the following findings and construes the disputed patent terms.[2]

[1]Plaintiff's claims against a seventh Defendant, Cox Communications, Inc., were severed and transferred to the United States District Court for the District of Delaware on November 1, 2006. *See* Doc. # 71.

[2]The transcript of the hearing contains representations and agreements of the parties and their answers to technical questions from the court, which underlie the conclusions set out in this

I. CLAIM CONSTRUCTION STANDARD OF REVIEW

Claim construction is a matter of law. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 116 S. Ct. 1384 (1996) ("*Markman II*"). "The duty of the trial judge is to determine the meaning of the claims at issue, and to instruct the jury accordingly." *Exxon Chem. Patents, Inc. v. Lubrizoil Corp.*, 64 F.3d 1553, 1555 (Fed. Cir. 1995) (citations omitted), *cert. denied,* 518 U.S. 1020, 116 S.Ct. 2554 (1996).

"'[T]he claims of the patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.,* 415 F.3d 1303, 1312 (Fed. Cir. 2005)(*en banc*)(citation omitted), *cert. denied,* 546 U.S. 1170, 126 S.Ct. 1332 (2006). "Because the patentee is required to 'define precisely what his invention is,' it is 'unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms.'" *Phillips*, 415 F.3d at 1312 (quoting *White v. Dunbar*, 119 U.S. 47, 52 (1886)).

The words of a claim are generally given their ordinary and customary meaning. *Phillips* 415 F.3d at 1312. The "ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Id.* at 1313. Analyzing "how a person of ordinary skill in the art understands a claim term" is the starting point of a proper claim construction. *Id.*

A "person of ordinary skill in the art is deemed to read the claim term not only in context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Phillips*, 415 F.3d at 1313. Where a claim term has a particular

---

Order. This Order governs in the event of any conflict between the Order and the court's preliminary analysis at the hearing.

meaning in the field of art, the court must examine those sources available to the public to show what a person skilled in the art would have understood the disputed claim language to mean. *Id.* at 1414. Those sources "include 'words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.'" *Id.* (citation omitted).

"[T]he ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." *Phillips*, 415 F.3d at 1314. In these instances, a general purpose dictionary may be helpful. *Id.*

However, the Court emphasized the importance of the specification. "[T]he specification 'is always highly relevant to the claim construction analysis. Usually it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Phillips*, 415 F.3d at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). A court is authorized to review extrinsic evidence, such as dictionaries, inventor testimony, and learned treaties. *Phillips*, 415 F.3d at 1317. However, their use should be limited to edification purposes. *Id.* at 1319.

The intrinsic evidence, that is, the patent specification, and, if in evidence, the prosecution history, may clarify whether the patentee clearly intended a meaning different from the ordinary meaning, or clearly disavowed the ordinary meaning in favor of some special meaning. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979-80 (Fed. Cir. 1995); *aff'd,* 517 U.S. 370, 116 S.Ct. 1384 (1996). Claim terms take on their ordinary and accustomed meanings unless the patentee demonstrated "clear intent" to deviate from the ordinary and

accustomed meaning of a claim term by redefining the term in the patent specification. *Johnson Worldwide Assoc., Inc. v. Zebco Corp.*, 175 F.3d 985, 990 (Fed. Cir. 1999).

The "'ordinary meaning' of a claim term is its meaning to the ordinary artisan after reading the entire patent." *Phillips*, 415 F.3d at 1321. However, the patentee may deviate from the plain and ordinary meaning by characterizing the invention in the prosecution history using words or expressions of manifest exclusion or restriction, representing a "clear disavowal" of claim scope. *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1327 (Fed. Cir. 2002). It is clear that if the patentee clearly intended to be its own lexicographer, the "inventor's lexicography governs." *Phillips*, 415 F.3d at 1316.

II. PATENT BACKGROUND AND TECHNOLOGY

The '792 patent is directed to a system and method for transmitting video programs to remote locations over selected commercial telephone networks. The program signals are digitized, compressed, and stored at the originating location, and sent to the remote location upon a viewer's request. The compression of the program means that the time required to transmit the program is less than the actual viewing time of the program. This system is known colloquially as "video-on-demand" ("VOD").

One of Ordinary Skill

USVO submitted the affidavit of Dr. William Beckmann, who opined that one of skill in the art would require knowledge of various technologies, including digital networking and network architecture, fiber optic transmission systems, data storage systems, digital video compression, telephone and telecommunication systems. Report of Dr. Beckmann, Pl. Op. Claim

Const. Br., Ex. D, at 2, 10 [Doc. # 149, pp. 3, 11 of 35]. Time Warner submitted a notice with its proposal of qualifications [Doc. # 161].

Based on the patents and their cited references, and the representations of the parties and their experts, the court finds that "one of ordinary skill in the art" covered by the patent-in-suit is someone with the equivalent of a "four year" degree from an accredited institution (usually denoted in this country as a B.S. degree) in a field such as electrical engineering, with a concentration of courses covering subjects such as computer science, communication networks, and data transmission, and at least three years of experience in digital networking and network architecture, fiber optic transmission systems, data storage systems, digital video compression, telephone systems, and telecommunication systems. Advanced education could substitute for some experience, while additional training and experience might substitute for formal college education.

III. CLAIM CONSTRUCTION

All six of the disputed terms in this case are found in Claim 1 of the '792 patent. Claim 1 is reproduced here, with the disputed terms in bold:

> 1. A system for transmitting video programs to remote locations over a **switched telephone network**, comprising:
>
> a **central data facility** having means for storing digital compressed versions of video programs;
>
> a request interface connected to said central data facility and to the **telephone network**, wherein said **request interface receives requests for video programs made over the telephone network** and communicates them to said central data facility;
>
> **a distribution interface** connected to said central data facility and to the telephone network, wherein said distribution interface initiates **connections over the telephone network** with remote locations in response to requests received by said request interface,

> and transmits thereto compressed versions of video programs previously requested through said request interface, such compressed versions being transmitted in less time than is required to view the programs in real time;
>
> a receiver at each remote location for connecting to the telephone network and receiving compressed video programs transmitted from said distribution interface, **for storing the received programs, and for subsequently playing the video programs** at a real time rate on a video display.

1. "Switched telephone network" or **"telephone network."**

Introduction

The parties agree that "switched telephone network" and "telephone network" have the same meaning. Tr. at p. 9, ll. 1-14. USVO proposes to define these terms as "a telecommunications network for voice and data transmission that uses temporary connections to establish a link or to route information between two parties." Time Warner suggested:

> [t]he Public Switched Telephone Network (PTSN), which is a circuit-switched network for placing telephone calls using a dedicated two-way communication path for the duration of each telephone call between two parties (e.g., which excludes a broadcast cable network characterized by transmission of a program signal to multiple users simultaneously).

USVO's proposal would capture embodiments that do not involve a telephone, while Time Warner's suggestion improperly restricts the invention to a single type of network switching. The court will define these terms as "commercial system for placing telephone calls between two parties."

Terms Not Limited to Public Switched Telephone Network

Part of the dispute centers on the fact that there are different kinds of switched networks. Time Warner wants the disputed terms limited to a "circuit switched network," specifically the Public Switched Telephone Network ("PTSN").

As set out in the technology synopses submitted by the parties, one of ordinary skill in the art would know that a "circuit switched network" is one which establishes a connection from one user to the other such that these users have dedicated use of the circuit until the connection is released. In a "packet switched network," data packets are relayed through various stations in a network and are reassembled in proper sequence at their destination. These terms are not uncommon. *See Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1344-45 n.2 (Fed. Cir. 2004). The terms were also defined in the "Background of the Invention" section of United States Patent No. 5,341,374 (the "Lewen" patent). *See* col. 1, ll. 21-27, col. 2, ll. 37-41. This patent was filed on March 1, 1991, and issued August 23, 1994, placing it within the time frame of the patent-in-suit. *See also* United States Patent No. 5,113,392 (the "Takiyasu" patent), filed June 18, 1990 and issued May 12, 1992, "Background of the Invention" (generally describing packet-based transmission).

There is no reason to limit the construction of "switched telephone network" and "telephone network" to the PSTN, as Time Warner suggests. While USVO's expert stated that, to his knowledge, the only definition or use of the phrase "switched telephone network" during the period 1990-1992 was in the context of the PSTN, he also stated that the PSTN did not have the capability to perform the actions recited in Claim 1 for residential users at that time. Report

of Dr. Beckmann, Pl. Op. Claim Const. Br., Ex. D, at 11-12 [Doc. # 149, pp. 12-13 of 35]. Dr. Beckmann went on to state that the characteristics of telephone network **12** disclosed by the '792 patent were consistent with those of an asynchronous transfer mode ("ATM") network, as envisioned in 1990-1992. *Id.* at 13; Tr. at p. 25, ll. 5-11.

Time Warner disputes this, and points to extrinsic evidence that USVO referred to its patented technology as having the PSTN as one element in its 1992 Quarterly Report. Quarterly Report, Def. Claim Const. Br., Ex. 2-A at 11 (filed under seal) [Doc. # 153, p. 8 of 9]. There is nothing in the claims, the specification, or the prosecution history that indicates "switched telephone network" was intended to be synonymous with PSTN. Neither the claims nor the specification define the "switched telephone network" or "telephone network" as only "circuit switched" or solely "packet switched." The court will not include these limitations in the construction of these terms.

"Telephone" Does Not Encompass all Telecommunications

USVO urges the court to construe the terms to encompass all telecommunications systems. The court concludes that this construction is too broad. The specification repeatedly describes the network as a "commercial telephone network." For example, the Abstract begins with: "A system and method for transferring video programs from a first location to a remote location . . . *over selected commercial telephone networks*." *See* Abstract [emphasis added]. This description is repeated in the Summary of the Invention:

> Therefore, according to the present invention, a system and method for transferring video programs from a first location to a remote location provides for communication of the programs *over selected commercial telephone networks.*

'792 Patent, col. 2, ll. 3-7 [emphasis added].

The Description of the Preferred Embodiment states that Figure 1 describes a "system for transferring video programs to a remote location [which] includes a central data facility **10** connected to a *commercial telephone network* **12.**" '792 Patent, col. 2, ll. 45-48 [emphasis added]. The specification goes on to state that "[t]elephone network **12** preferably includes optical fiber connections . . . expected to be widely available [in the United States] in the future." '792 Patent, col. 2, ll. 50-54. At the receiving end, (the "remote location") "a telephone **14** and receiving unit **16** are connected to *the telephone network* **12."** '792 Patent, col. 2, ll. 55-56 [emphasis added]. A video display device, such as a television set, is attached to the receiving unit. '792 Patent, col. 2, ll. 56-61.

USVO could point to no description of the patented system which does not include a telephone. There is no basis to expand the terms "switched telephone network" and "telephone network" to include other telecommunication systems such as radio or other broadcast media.

The real dispute in this case is not really over such an expansive construction. The suit arises because fiber-optic cables, originally installed and used for simultaneous broadcast of programs to many customers, can now be used for commercial telephone service. [3]

Time Warner points to a prosecution history disclaimer of broadcast cable systems, while USVO relies upon the rule that limitations in the specification may not be imported to the claims. More precisely, the latter axiom provides that courts should avoid importing limitations from the

[3]The court is aware of the danger of bias resulting from construing a claim with reference to an accused system. In this case a basic understanding of the subject matter in dispute (not the details of the accused system) puts the claim construction in context. *See Serio-US Indus., Inc. v. Plastic Recovery Tech. Corp.*, 459 F.3d 1311, 1319 (Fed. Cir. 2006).

specification into the claim terms, absent a clear disclaimer of claim scope. *Phillips v. AWH Corp*. 415 F.3d 1303, 1323 (Fed. Cir. 2005); *Gillette Co. v. Energizer Holdings, Inc*., 405 F.3d 1367, 1375 (Fed. Cir. 2005). At the same time, where the specification uses language of requirement, rather than preference, the specification describes an essential step or element of the claim rather than merely a preferred embodiment. *See Andersen Corp. v. Fiber Composites, Inc.*, 474 F.3d 1361, 1372-73 (Fed. Cir. 2007), *Honeywell Int'l v. ITT Indus., Inc*., 452 F.3d 1312, 1318 (Fed. Cir. 2006).

In order to overcome a prior art rejection, the applicants distinguished the prior art references by characterizing them as providing for "broadcasting over a cable." The applicants went on to state that "the broadcast cable techniques are clearly not relevant to the claimed invention; they provide for transmission to many possible users simultaneously while the claimed system sends a program only to a single intended recipient." Amendment of 5/22/91, Def. Claim Const. Br., Ex. 1-A at 8 [Doc. # 152, p. 9 of 12]. In the "Background of the Invention," the patentee states:

> [P]rograms transferred to a remote location along a *specially installed, dedicated cable* generally have a reliably good picture quality. However the cable must be installed at each remote location, and controlled through a centralized facility. . . . As is the case with broadcast systems, transmitting equipment must be made available at the time any particular program is to be viewed. The selection of programs and times for viewing are made centrally, as is the case with broadcast systems, and are not under the control of a viewer at a remote location.

'792 Patent, col. 1, ll. 34-46. [emphasis added] The patentee continues: "It would be "desirable to provide a system . . . which overcomes various drawbacks as described above." '792 Patent, col. 1, ll. 55-58.

While the court is mindful of avoiding importing limitations from the specification to the claims absent a clear disclaimer, the patentees clearly disclaimed distribution of programs by general broadcasts over cable networks. Today, however, cable TV providers offer commercial point to point telephone service over the cables originally installed for broadcast of programs. *See* Tr. at p. 17, l. 23-p. 19, l. 17. The fact that the cable can be used for general broadcasts, which were disclaimed by the patentee, is not a reason to craft a claim construction which, in and of itself, excludes the same cable when used for point to point telephone service. That is an infringement argument which will depend on evidence about how Defendants supply their "video on demand" services.

The court will define these terms as follows:

"**Switched telephone network**" and **"telephone network**" mean "a commercial system that establishes a route for telephone communication from one party to another"

2. "Central data facility."

USVO proposes "One or more locations (distinct from the remote locations) at which video programs are stored." Time Warner suggests "A single location at which video programs are digitized, compressed, and stored for subsequent request by a user." At the hearing, both sides agreed that compressed video programs are stored at the central data facility. Tr. at p. 53, ll. 9-20.

The claim term is part of a "comprising" claim, and is stated as "*a* central data facility." (emphasis added). In patent parlance, the "comprising" language implies "including at least the described elements, and perhaps more." *Cias, Inc. v. Alliance Gaming Corp*., 2007 U.S. App.

LEXIS 22807 at *9 (Fed. Cir. Sept. 27, 2007)("In the patent claim context the term 'comprising' is well understood to mean 'including but not limited to.'"). "A" denotes "one or more than one." *Norian Corp. v. Stryker Corp.,* 432 F.3d 1356, 1359 (Fed. Cir. 2005).

Defendants agreed that there could be more than one central data facility. Their request for "a single location" in the construction of this term is merely a way of stating their position that each central data facility needed to perform all three functions (digitizing, compressing, and storing video programs). Tr. at p. 53, l. 21- p. 54, l. 5.

USVO argues that Time Warner's proposed construction would import limitations from the preferred embodiment into the claim. Figures 1 and 2, which show all three functions at one location, do represent a preferred embodiment. However, both the Summary of the Invention and the Abstract also state that all three steps- digitizing, compressing, and storing- happen at the first location.

The Abstract of the '792 patent states that "program signals are digitized, compressed, and stored at the first location, and transferred to the remote location on request of a viewer." This description is echoed in at least two other places in the specification: first in the Summary of the Invention, col. 2, ll. 7-9 ("The program signals are digitized, compressed, and stored at the first location..."), and later in the Description of the Preferred Embodiment, col. 3, ll. 7-16 ("The central data facility **10** includes a central processor **20** connected to one or more mass storage devices **22**...The video programs are digitized and compressed in a digitizing processor **26**, and transferred to the central processor **20** for retention in mass storage devices **22**."). Figures 1 and

2 clearly show that the central data facility encompasses the digitizing processor **26**, the central processor **20**, and the mass storage device **22**.

At the hearing, USVO suggested that this was simply poor wording by the applicant and that Claim 1 states only that the central data facility has "means for storing digital compressed versions of video programs." Tr. at p. 56, ll. 8-10; '792 Patent, col. 7, ll. 43-44. "Poor wording" is not a convincing argument to ignore the plain language of the specification.

While the specification indicates that the central data facility digitizes, compresses, and stores the video program, Claim 1 only recites a central data facility which stores the digitally compressed program. This is part of a "comprising" claim, so the claimed system must have at least "a central data facility" that has "means for storing digital compressed versions of video programs." Time Warner argues that "central data facility" is vague, and must be more than a storage place for videos. The patentee does not have to describe every feature of a facility; this is especially true in the context of a "comprising"claim.[4] It is also possible for a patentee to disclose, but decline to claim, subject matter. "[T]his action dedicates that unclaimed subject matter to the public." *Johnson & Johnston Assoc. V. R.E. Serv. Co.*, 285 F.3d 1046, 1054 (Fed. Cir. 2002).

Claim 1 states only that the central data facility stores programs that are digitized and compressed. There is no good basis for including other limitations. The court will therefore define this term as follows:

---

[4]For example, the facility probably also has desks, computers, copiers, and other office necessities, none of which need to be described to one of skill in the art.

"**Central data facility**" means "a location where digital compressed versions of video programs are stored."

3. "Request interface [that] receives requests for video programs made over the telephone network."

Technical Background - "Interface"

One of ordinary skill in the art would know that in general terms, the common meaning of "interface" in the field of computer science is a boundary through which information passes. It could be a physical connection between two pieces of hardware, such as a USB port. It could also denote the software that allows information to be transferred from one program to another. An example of this would be the printer driver that allows a printer to begin printing in response to a print command entered on a personal computer. *See discussion in* Tr. at pp. 73-79.

In the context of the patent-in-suit the incoming interface allows signals from the switched telephone network to be received by the central data facility and converted into the language used by the central processing unit ("CPU"). The distribution interface allows signals from the central data facility to be converted to go out as electronic signals on the telephone network. Tr. at p. 68, l. 6- p. 69, l. 25.

Request Interface

For the definition of this term, Time Warner suggests "a device (distinct from the distribution interface) that receives call-in user requests sent over the switched telephone network, including requests for video programs, from users who are located somewhere other than the remote receiving locations."

USVO proposes "Hardware and/or software that receives data representing a request for a video program, the request being made over a switched telephone network." The parties dispute a number of points, including whether the interface can be software, whether the request interface is distinct from the distribution interface, and whether the requesting party can be located somewhere other than the remote receiving location.

Claim 1 recites a "request interface" that is connected to the central data facility and the telephone network, which receives requests for video programs that are made over the telephone network and communicated to the central data facility. '792 Patent, col. 7, ll. 45-49. Time Warner argues that the request interface must be a hardware device, rather than a software interface, and points to the language in Claim 1 (the request interface is "connected to said data facility and to the telephone network"[emphasis added]) as well as Figure 2 (which they claim depicts the request interface as a physical hardware device) to support their position. USVO, on the other hand, argues that "interface" is commonly understood in the art and the scientific community as encompassing software as well as hardware, and that there is nothing in the claims, specification, or prosecution history to indicate that any other construction was intended.

As discussed above, the common meaning of the term "interface" encompasses both hardware and software connections. For example, the *Microsoft Press Computer Dictionary* defines "interface" as "[t]he point at which a connection is made between two elements so that they can work with one another," which can be hardware or software. MICROSOFT PRESS COMPUTER DICTIONARY A-421 (1991); *see also* IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONIC TERMS 540-41 (6th Ed. 1996)(defining "interface" as a "shared boundary,"

which can be "[a] hardware of software component that connects two or more components for the purpose of passing information from one to the other.").

At the hearing, Time Warner argued that the use of the terms "connection" or "through" in the claims and specification to refer to the passing of information through the interface implies that the interface must be hardware. The court finds it hard to imagine what alternate phrases the patentees could have used that would have denoted both. Moreover, the definitions cited above demonstrate that "connection" has meaning in the context of a software interface. Finally, the argument over "hardware only" and "software only" is, to a large extent, a distinction without a difference. Except for a few special purpose devices, such as a music box, hardware without software is a collection of metal and plastic. Software without hardware to run it is just a program on a disc sitting in a package. *See* Tr. at p. 80, ll. 11-13; p. 105, l. 21 - p. 106, l. 18.

The parties also dispute whether the individual requesting the video can be located somewhere other than the remote receiving location. At the hearing, Time Warner took the position that every embodiment of the invention must allow for remote requests. Tr. at p. 86, ll. 7-15. In their brief, Time Warner cites several portions of the specification which refer to the requests for video programs being called in using an ordinary telephone, rather than a remote receiving unit to support their theory. '792 Patent, col. 2, ll. 61-69; col. 6, ll. 19-30; Figure 1. USVO argues that while a remote request is envisioned by the invention, every embodiment does not have to allow for it and that Time Warner's construction improperly imports limitations from the specification into the claims.

Defendants' position is that they do not import limitations from the specification into the claims because the applicants disclaimed their construction during prosecution by distinguishing the claims over the prior art. For example, the applicants stated that Claim 1 "allow[s] a user to request a program from anywhere other than the receiving unit," and that it gives users "the convenience of being able to order a program from anywhere." Amendment of 5/22/91, Def. Claim Const. Br., Ex. 1-A at 8-9 [Doc. # 152, pp. 9-10 of 12]. However, the language to which Time Warner points only suggests exactly what USVO stated at the hearing: some embodiments of the invention involve remote requests, but this is not required of every single embodiment. Disclaimer during prosecution must be "unequivocal" in order to "narrow[] the ordinary meaning of the claim congruent with the scope of the surrender." *Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005). While the applicants distinguished the prior art on the basis of their invention's additional feature of remote requests, there is no indication that they unequivocally disclaimed the possibility of their invention ever having an embodiment which did not allow for remote requesting.

Finally, Time Warner argues that the request interface is separate from the distribution interface, and that distinction should be part of the court's claim construction. Claim 1 clearly states that these two components must be present ("A system...comprising...a request interface...[and] a distribution interface...."), but not that they have to be distinct. '792 Patent, col. 7, ll. 40-50. They are depicted in Figure 2 as two separate components of the central data facility and described in the specification as performing different functions ("incoming requests for programs are connected to a request interface **28**...[o]utgoing programs being transmitted to remote receiving units are routed through a distribution interface **30**."). '792 Patent, col. 3, ll. 17-

21. While Dr. Mirhan, Defendant's expert, opined that the two interfaces were distinct, he agreed that "you could certainly package various functionalities in different ways." Tr. at p. 72, ll. 18-19. The court will define the term as follows:

"Request interface" means "the connection that permits data to be conveyed from the telephone network to the central processor."

4. "Distribution interface."

The technical background of "interface" and much of the analysis of "request interface" applies to this term. USVO proposes to define "distribution interface" as "hardware and/or software that allows two elements (a central data facility and a switched telephone network) to work together in the manner recited in the claim." Time Warner suggests:

> A device (distinct from the request interface) that is connected to the central data facility and that (1) initiates a connection over the switched telephone network with each remote recipient, in response to requests for video programs received by the request interface, and (2) downloads each requested video program over the network to a single intended remote recipient.

Claim 1 describes a distribution interface, connected to the central data facility and the telephone network, which "initiates connections over the telephone network with remote locations in response to requests received," by the request interface and transmits to the remote location the compressed video programs previously requested through the request interface. As with request interface, Time Warner argues that the distribution interface must be a hardware device and is separate from the request interface.

Time Warner also takes the position that the distribution interface only performs two functions, and that these two functions can only be done with respect to a single remote viewer at

a time. USVO again argues that "interface" should be given its common meaning and that the distribution interface does not have to be distinct from the request interface.

The court has already addressed Time Warner's arguments that the distribution and request interfaces are separate, that an interface must be a hardware device,[5] and that every embodiment must allow for remote requesting in the context of request interface. Time Warner's position that the construction should recite two functions performed by the distribution interface would be overly repetitive, as Claim 1 already states what the distribution interface does. '792 Patent, col. 7, ll. 50-59.

Time Warner's final point is that the program must be transmitted to a single recipient. While Time Warner did not agree with the court's proposed definition for this term at the hearing, Tr. at p. 93, l. 19- p. 94, l. 8, this definition adequately addresses Time Warner's concern that the program is transmitted only to the requesting customer. At the hearing, USVO agreed with the court's proposed construction of this term. Tr. at p. 93, ll. 15-16. The court will define this term as follows:

"Distribution interface" means "the connection that permits data to be conveyed from the central processor through the telephone network to the requesting customer."

[5]Defendants' strenuous argument in connection with the next disputed term, that the phrase "said distribution interface initiates" means that the distribution interface itself begins calls over the distribution network, is at odds with their position that the interface is merely hardware. Hardware without a program is not likely to receive a signal, choose a recipient, and initiate a call.

5. "Connections over the telephone network."

USA Video proposes "Associations between two or more endpoints on a telecommunications network for the transfer of data." Time Warner suggests "Point-to-point calls, each call to a single intended recipient over telephone lines, which calls are established before transmission of the requested program, and do not involve broadcast cable techniques." The court construed the term "telephone network" in Part III(1) *supra*; therefore, the court will focus on the construction of "connections" here.

USVO argues that "connection" should be given its ordinary meaning. It cites to the 1999 Edition of the IEEE Standard Dictionary, which defined "connection" as "an association established between two or more endpoints or the transfer of data." The Authoritative Dictionary of IEEE Standards Terms, Pl. Claim Const. Br., Ex. C, at 220 [Doc. # 149, p. 4 of 4]. USVO's expert, Dr. Beckmann, stated that such a definition is consistent with the way that the term was used in 1990-92. Time Warner argues that even if the court were to agree that this was how the term was used at the time of the invention, the applicants disclaimed a definition of "connection" that was this broad.

For instance, Claim 1 states that both the request and distribution interfaces are connected to the telephone network, '792 Patent, col. 7, ll. 45-46, 50-51. In order to overcome a prior art reference during prosecution, which recited a system in which video programs were transmitted over a fiber optic cable and sent to multiple recipients, the applicants stated:

> The system of Claim 25 [later Claim 1 of the '792 Patent] is directed to a system which has a central data facility for storing video programs. A request interface is provided, which receives call in requests over the telephone network. A distribution interface then initiates a call to a remote unit, and transmits a compressed video program to it.

Amendment of 5/22/91, Def. Claim Const. Br., Ex. 1-A at 8 [Doc. # 152, p. 9 of 12]. The applicants go on to state that the "distribution interface initiates all calls to remote units before transmitting the video programs to them...the claimed system sends a program only to a single intended recipient." *Id.* The applicants clearly distinguished their own invention over the prior art on the basis of transmission to a single recipient and repeatedly used the word "call" when referring to the program requests and transmissions.[6] At the hearing, USVO agreed that the requested program is transmitted to a single customer. Tr. at p. 109, ll. 5-8.

While "call" is frequently used by applicants in the prosecution history, the court's concern is that jury confusion may result from its use in claim construction. A "call" implies that some voice component is involved, which is not true with respect to the program sent by the distribution interface to the remote unit. A jury is naturally inclined to assume "call" and "telephone call" are synonymous, when they clearly are not in this case. At the hearing, Time Warner suggested using the term "data call" rather than "call," Tr. at p. 109, ll. 17-19, while USVO stated that "communication" would be less confusing than "call" or "data call." Tr. at p. 109, ll. 19-23. The court is of the opinion that "communication" has the advantage of being clearer than "call" or "data call," and would also alleviate Time Warner's concerns that USVO's proposed construction attempts to re-claim subject matter surrendered during prosecution. The court will define this term as follows:

---

[6]For a discussion of this part of the prosecution history, *see USA Video Tech. Corp. v. Movielink LLC*, 354 F. Supp. 2d 507, 513-520 (D. Del. 2005)(construing "initiates" as "begins" and holding that the central facility initiates the new connection).

"Connections over the telephone network" means "Communications to a single intended recipient over the telephone network."

6. "For storing the received programs, and for subsequently playing the video programs."

USVO proposes "establishing an order of events (storing, playing) in which playing does not commence until the storing commences." Time Warner suggests "for storing the entire program within the receiver and for playing the stored program after downloading and storage of the program is complete." The key dispute between the parties over this term is in what order the storage and playing of the video program occurs: USVO's position is that the video program can be played after storage commences but before it is complete, while Time Warner argues that the video program can only be played after storage is complete.

The claim term describes two steps: (1) the program is stored ("storing the received program"), then (2) the program is played ("subsequently playing the video programs"). This plain language compels the conclusion that the program is played after it is stored. Accordingly, the court must construe "program" and decide whether it means portions of the program or the entire program.

Time Warner argues that the claims, specification, and prosecution history consistently use "program" to mean the entire program, rather than just portions of it. *See, e.g.*, Claim 1, col. 7, ll. 46-48 ("wherein said request interface receives requests for video programs made over the telephone network"); col. 1, ll. 14-17 ("video programs include motion pictures, entertainment programs for television"); col. 5, ll. 29-31 ("[in a preferred embodiment] data is stored onto mass

storage device **78** until the entire requested program has been down loaded from the central data facility **10**").

Applicants also stated in the prosecution history that "the remote unit stores the program for later playback," and that the distribution interface allows for "downloading a compressed video program for later decompression and playback." Amendment of 5/22/91, Def. Claim Const. Br., Ex. 1-A at 8-9 [Doc. # 152, pp. 9-10 of 12]. Like "subsequent" in Claim 1, "later" means that the program is decompressed and played after it is downloaded and stored. There is nothing in the claims, specification, or prosecution history that would indicate that when the word "program" is used, it means something other than the entire program. There is no distinction made between a program that is remotely requested (which the court does not think can logically mean anything other than the entire program) and the program that is downloaded or stored.

USVO argues that when the patentees were referring to an embodiment where the entire program was stored before playback began, as in the preferred embodiment and in Claim 6, they clearly stated that they were doing so. *See, e.g.*, col. 5, ll. 29-31; Claim 6, col. 8, ll. 55-58. They also take the position that Time Warner is improperly importing a limitation from the specification into the claim language, by reading the requirement of the preferred embodiment that the program be fully stored before playing into Claim 1. However, the statements made by the applicants during prosecution clearly indicate that, in order to overcome the prior art, the limitation of "subsequent" or "later" decompression and playback was added, with no hint that the program could be only partially downloaded before said decompression and playback would

occur. "Program" is used consistently throughout the specification and claims in a manner that strongly suggests it refers to the entire program. The court will define this term as follows:

"For storing the received programs, and for subsequently playing the video programs" means: "For storing the entire received program and for playing the video program after storage is complete."

So **ORDERED** and **SIGNED** this **12** day of **December, 2007.**

Ron Clark, United States District Judge